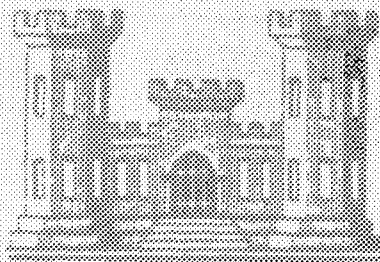


# FLOOD INSURANCE STUDY

## NARRAGANSETT, RHODE ISLAND



PREPARED FOR

FEDERAL INSURANCE ADMINISTRATION

BY

DEPARTMENT OF THE ARMY  
NEW ENGLAND DIVISION, CORPS OF ENGINEERS  
WALTHAM, MASS.

JULY 1971

PRELIMINARY

NARRAGANSETT, RHODE ISLAND

FLOOD INSURANCE STUDY

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## NARRAGANSETT, RHODE ISLAND

### FLOOD INSURANCE STUDY

1. Authority for Study. This study was prepared at the request of the Federal Insurance Administration, U. S. Department of Housing and Urban Development, under the authority of the National Flood Insurance Act, Public Law 90-448, dated August 1968, and subsequent criteria. The study provides data required for a Type 10 Study of the town of Narragansett, Rhode Island. Flood insurance rates for Narragansett will be developed by the Federal Insurance Administration using data contained in this report. Authority for the New England Division to perform the study is contained in letter from the Office of the Chief of Engineers, ENGCW-PF subject: Type 10 Flood Insurance Studies, dated 23 December 1970.
2. Financing of Study. This study was financed by the Federal Insurance Administration on a reimbursable basis with billing for work performed being made directly to the Federal Insurance Administration by the New England Division under Inter-Agency Agreement (IAA-H-71).
3. Description of the Area. The town of Narragansett, Rhode Island is bordered by North Kingstown to the north and by South Kingstown to the west. It has a total area of 18.3 square miles of which 13.9 is land and the remaining 4.4 square miles to water. The Census count as of 1969 was 6,941 giving a density of 499 people per square mile. Narragansett was originally a farming area but rapidly developed into a summer resort and fishing community. The shore resort which includes bay and ocean front covers 12 miles plus sheltered salt ponds and inlets. There are eight public beaches, including Scarborough State Beach and four private beach clubs, also extensive state piers for small boats at Galilee, on Point Judith. The range of flooding varies from the highest along the eastern shore of Narragansett Pier to the lowest at Jerusalem, Galilee and Point Judith Pond which is 4.2 feet lower. The areas prone to flooding during high tides induced by hurricanes and large storms are located in four distinct areas where there is a tidal differential namely, (1) Jerusalem, Galilee and Point Judith Pond, (2) Sand Hill Cove, (3) North End of Point Judith Pond, (4) the entire Eastern Shore of Narragansett and Pettaquamscutt River. The value of properties on the southern shores namely Jerusalem, Galilee and Sand Hill Cove are

substantially lower values (\$6,000 to \$20,000). Jerusalem area having the greater number of lower values and also the summer residents being approximately 90%. The Sand Hill Cove and Galilee areas have the greater number of residences of which 40% are summer residences and also have a greater valuation range of \$15,000 to \$20,000. Great Island at lower Point Judith Pond reflects a wide valuation range from \$16,000 to \$45,000, about 90% have either basements or garage under first story. The island has approximately 150 homes of which 50% are permanent residences. The remaining areas which are flood-prone have a valuation range of 10,000 to 35,000 and some in excess of \$35,000.

4. Hydrology and Zones Involved. In connection with a report on Hurricane Tidal Flooding in Narragansett Bay, prepared in 1965, stage-frequency relationship for tidal flooding for broad reaches of Narragansett Bay were developed. The town of Narragansett fell in four reaches. The reach along the eastern coast of Narragansett was designated Reach 1 with the Zone between the water's edge and elevation 13.7 feet mean sea level. The 100-year flood elevation, designated Zone A1 and the Zone between 100-year flood line and elevation 17.5 feet mean sea level, the SPH elevation designated as B1. At Sand Hill Cove just west of Point Judith is designated Reach 2 with 100-year and SPH elevation being 10.7 feet and 13.6 feet mean sea level respectively and Zone designations being A2 and B2 respectively. Galilee, Jerusalem and Point Judith Pond are designated Reach 3 with the 100-year and SPH elevation being 9.7 feet and 13.0 feet mean sea level respectively and Zone designations being A3 and B3 respectively. Reach 4 which is in the upper reaches of Point Judith has a 100-year and SPH elevation of 11.5 feet and 14.7 feet mean sea level respectively and the Zone designations being A4 and B4 respectively. The rest of the town is designated as Zone c. The stage-frequency curves used in determining the elevations are shown in Plates 1 through 4. For Reach 1, the nearest Flood Hazard Factor is 045, lower portion of curve C, D, F, G, H, and upper portion of curve C. Reach 2, the nearest Flood Hazard Factor is 040 lower portion of curve C, D, F, G, H and upper portion of curve E. Reach 3, the nearest Flood Hazard Factor is 035 lower portion of curve C, D, F, G, H, and upper portion of curve D. Reach 4, the nearest Flood Hazard Factor is 045 lower portion of curve C, D, F, G, H, and upper portion of curve E.

The exact flood hazard factor for Reach 1 through 4 with plotting position are as follows:

NARRAGANSETT, RHODE ISLAND

Depth-Percent Damage Table

<u>Depth in feet from 1st Floor</u>	<u>Structure 2B</u>	<u>Contents BFS</u>
-8	0	0
-7	1.0	1.0
-6	1.0	2.0
-5	4.0	3.0
-4	8.0	8.0
-3	10.0	12.0
-2	11.0	13.0
-1	12.0	13.0
0	14.0	14.0
1	38.0	34.0
2	46.0	48.0
3	51.0	57.0
4	58.0	64.0
5	62.0	67.0
6	64.0	68.0
7	66.0	68.0
8	70.0	68.0

Table 1

<u>Reach</u>	<u>Exact FHF</u>	<u>10 yr.</u>	<u>25 yr.</u>	<u>100 yr.</u>	<u>500 yr.</u>
1	046	4.6	3.1	0	3.8
2	041	4.1	2.7	0	2.9
3	037	3.7	2.5	0	3.3
4	046	4.6	3.1	0	3.2

5. Type of Residences. The general types of housing in Narragansett fall in two categories, permanent and summer homes. The permanent homes are mostly single family wood frame with basement. The type of structures are capes, ranges, split-levels and modified colonial two-stories. Ranches predominate over all areas. The summer homes which are situated in Sand Hill Cove, Galilee and Jerusalem are very small and are constructed on wood piles. These homes make up 80% of the summer residences of these three areas. The remaining summer homes scatter throughout vary greatly in design, size and type of construction.

6. Structure and Contents Classifications. Properties found in Narragansett Pier fall into two classes as follows:

#### Structures

##### Class

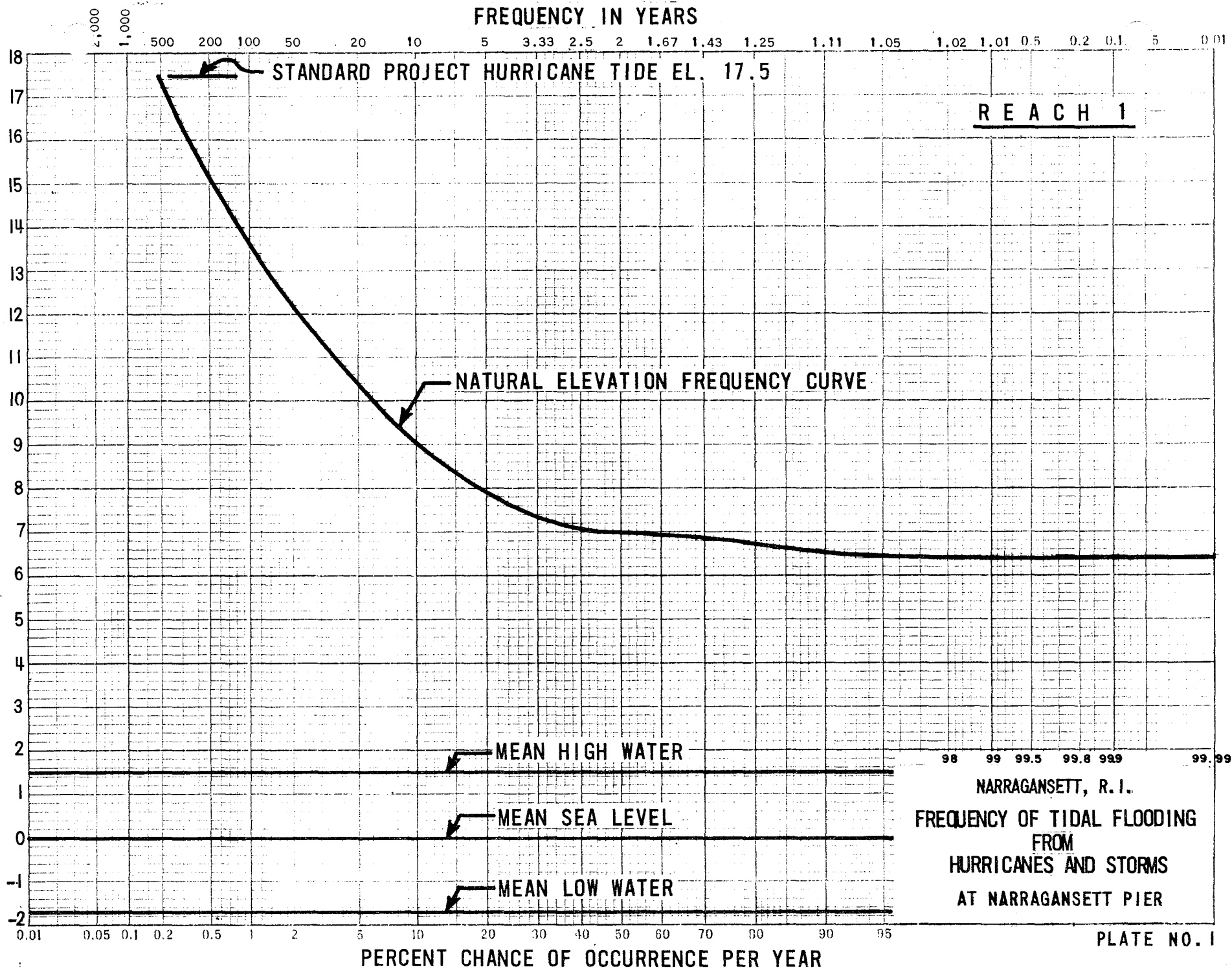
1B	Single story with basement
2B	Two-story with basement

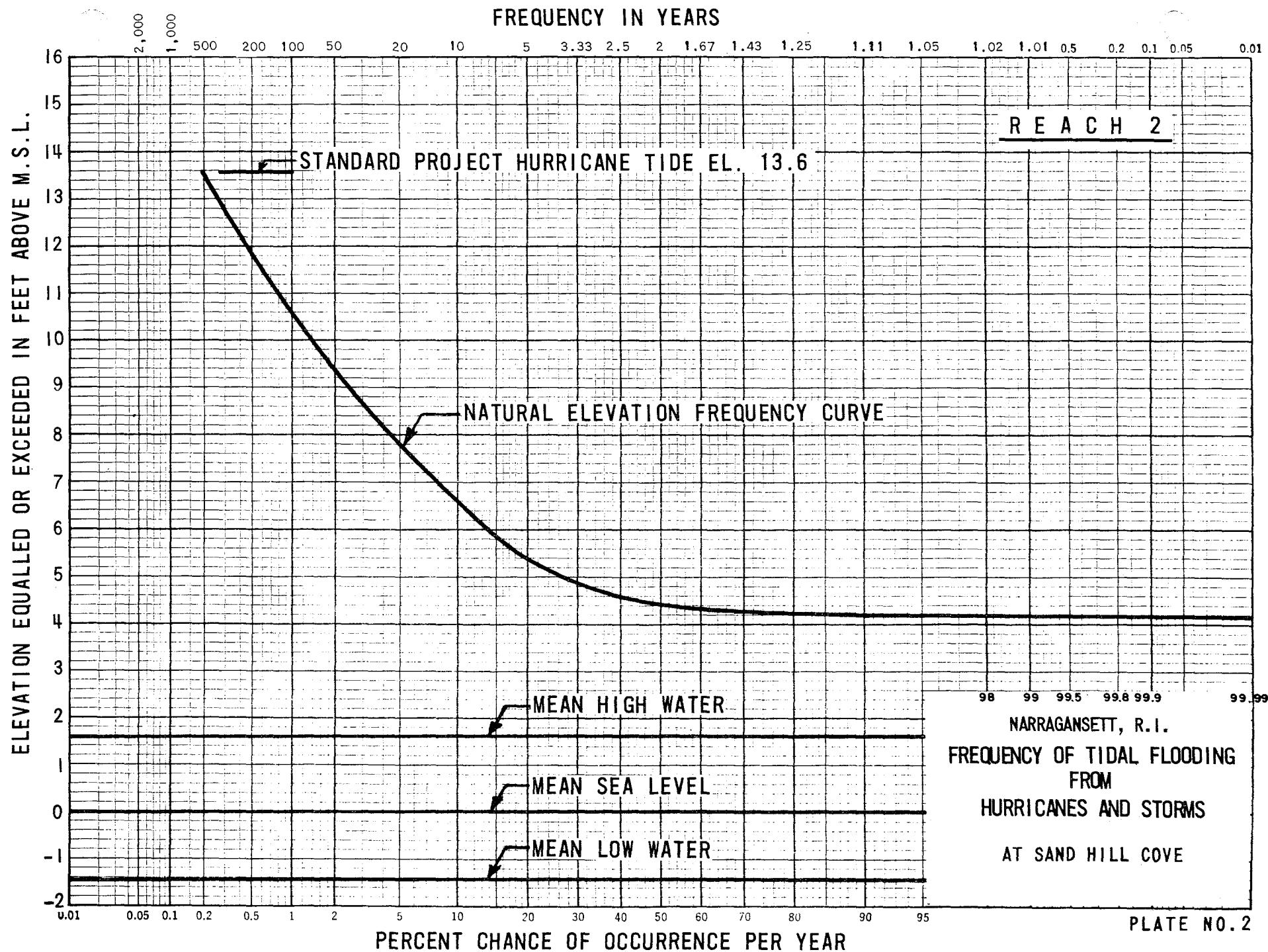
#### Contents

.BF	In basement on the first floor
BFS	Basement and first and second floor

7. Depth-Percent Damage Data. For the two-story with basement structures, data developed for the Newport, R.I. study are applicable and are shown on Table 1. Data are not available for type of single-story with basement structure found.

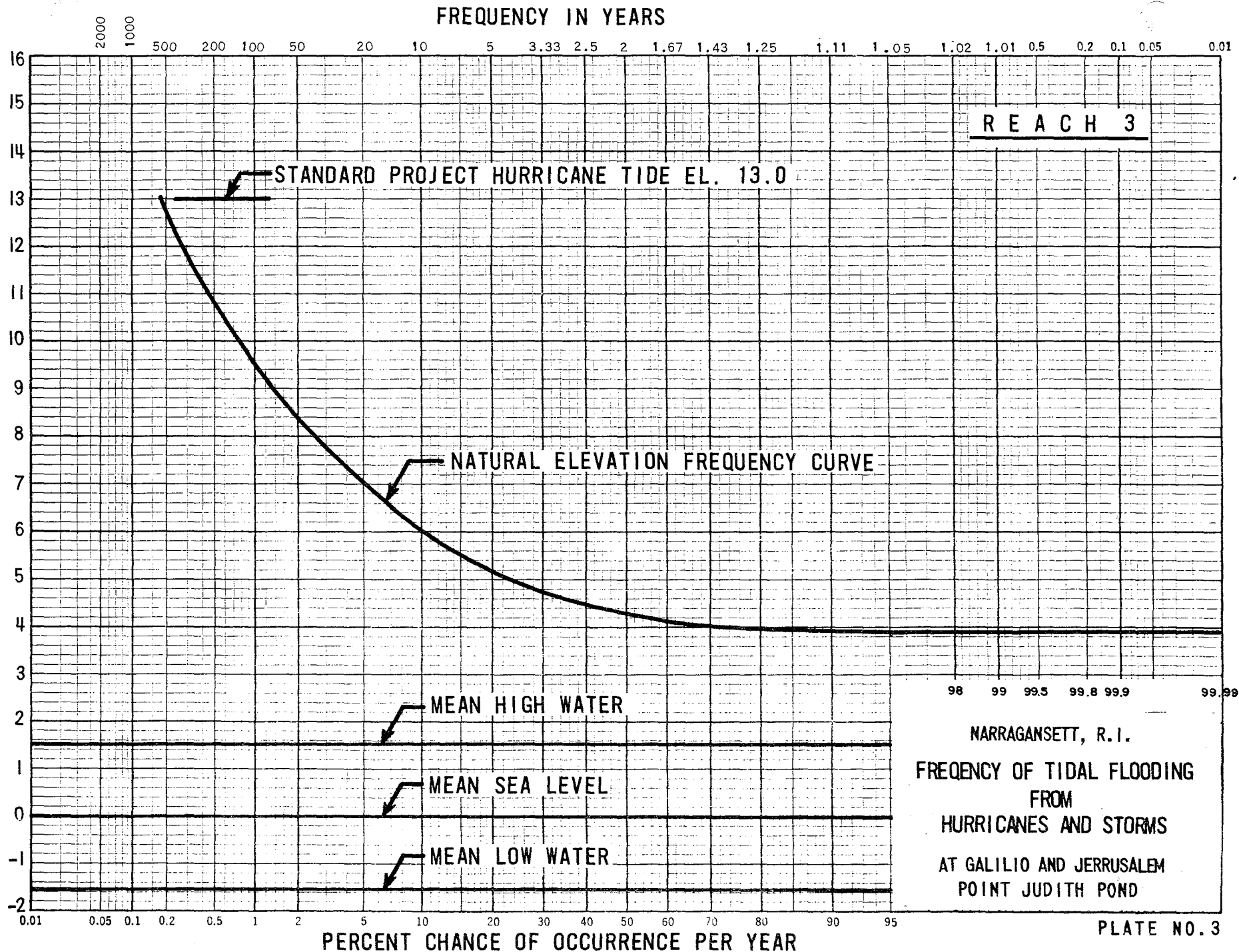
8. Map. The Flood Insurance Study Map, Plates 5 through 19, was prepared in accordance with "Option 1" of the 9 October 1970 instructions for "Contents of a Type 10 Flood Insurance Study."



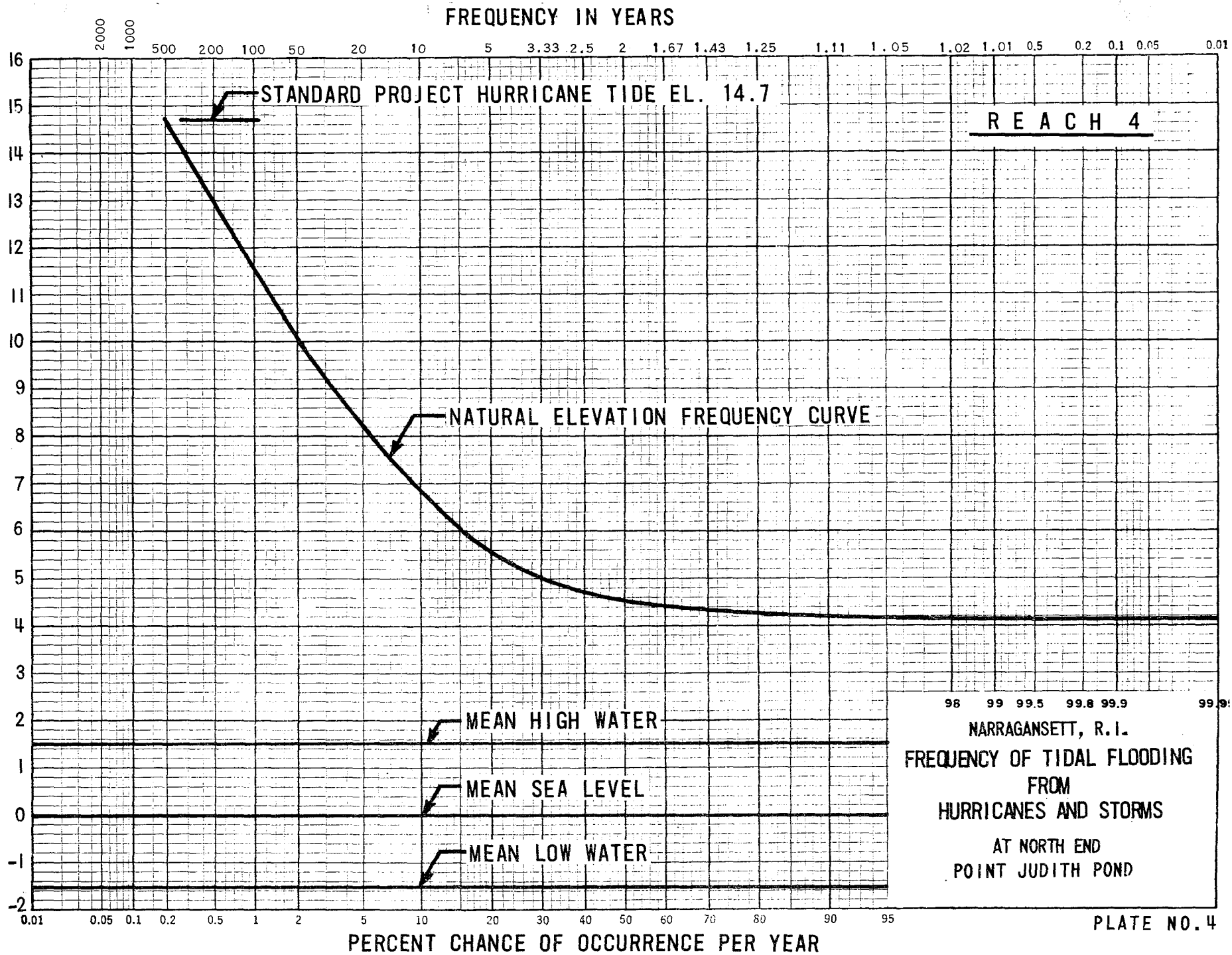




ELEVATION EQUALLED OR EXCEEDED IN FEET ABOVE M.S.L.



ELEVATION EQUALLED OR EXCEEDED IN FEET ABOVE M.S.L.



# **LEGEND**

--- LIMIT OF ZONE B

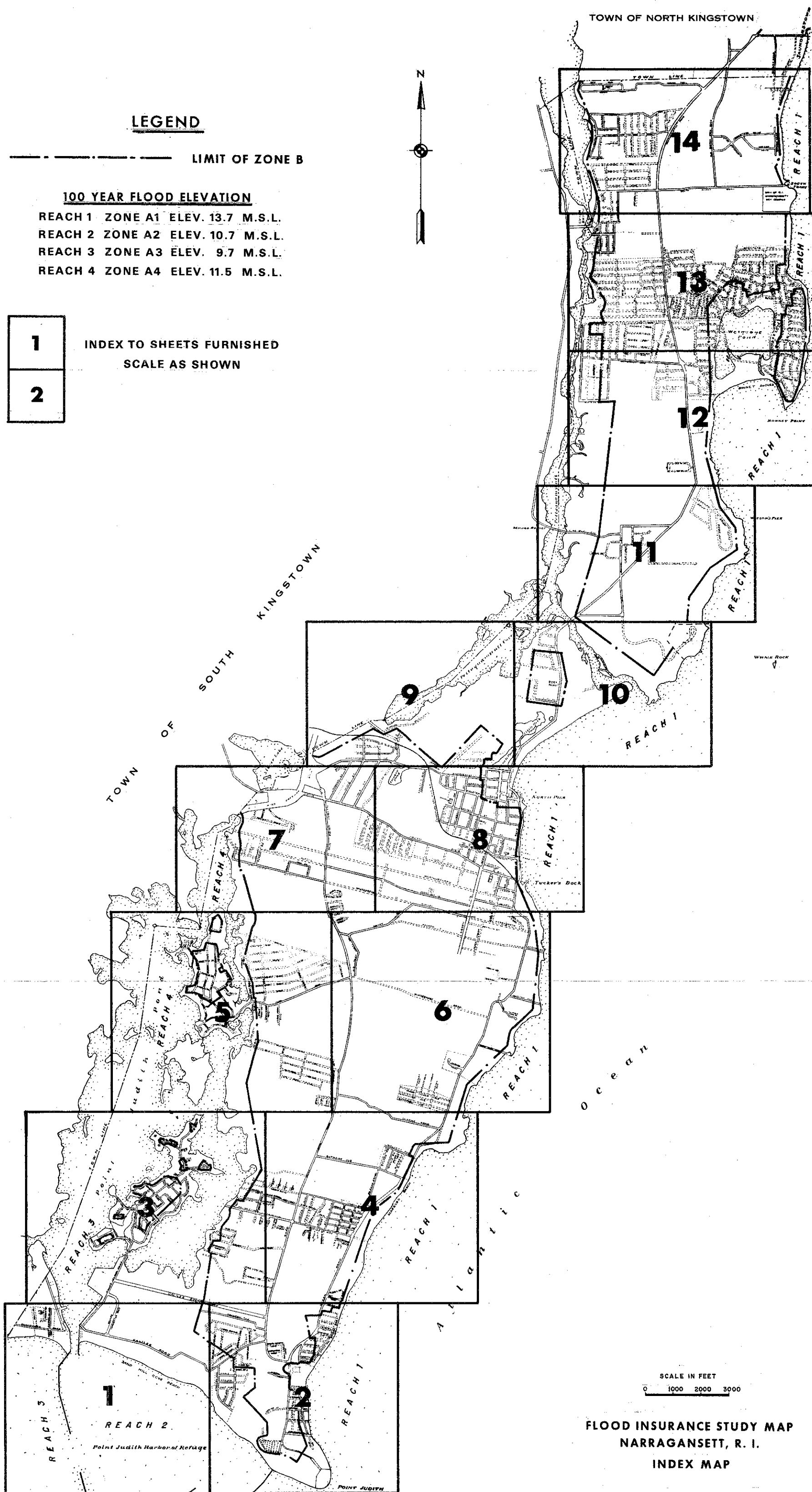
## **100 YEAR FLOOD ELEVATION**

REACH 1 ZONE A1 ELEV. 13.7 M.S.L.  
 REACH 2 ZONE A2 ELEV. 10.7 M.S.L.  
 REACH 3 ZONE A3 ELEV. 9.7 M.S.L.  
 REACH 4 ZONE A4 ELEV. 11.5 M.S.L.

**1**

INDEX TO SHEETS FURNISHED  
 SCALE AS SHOWN

**2**

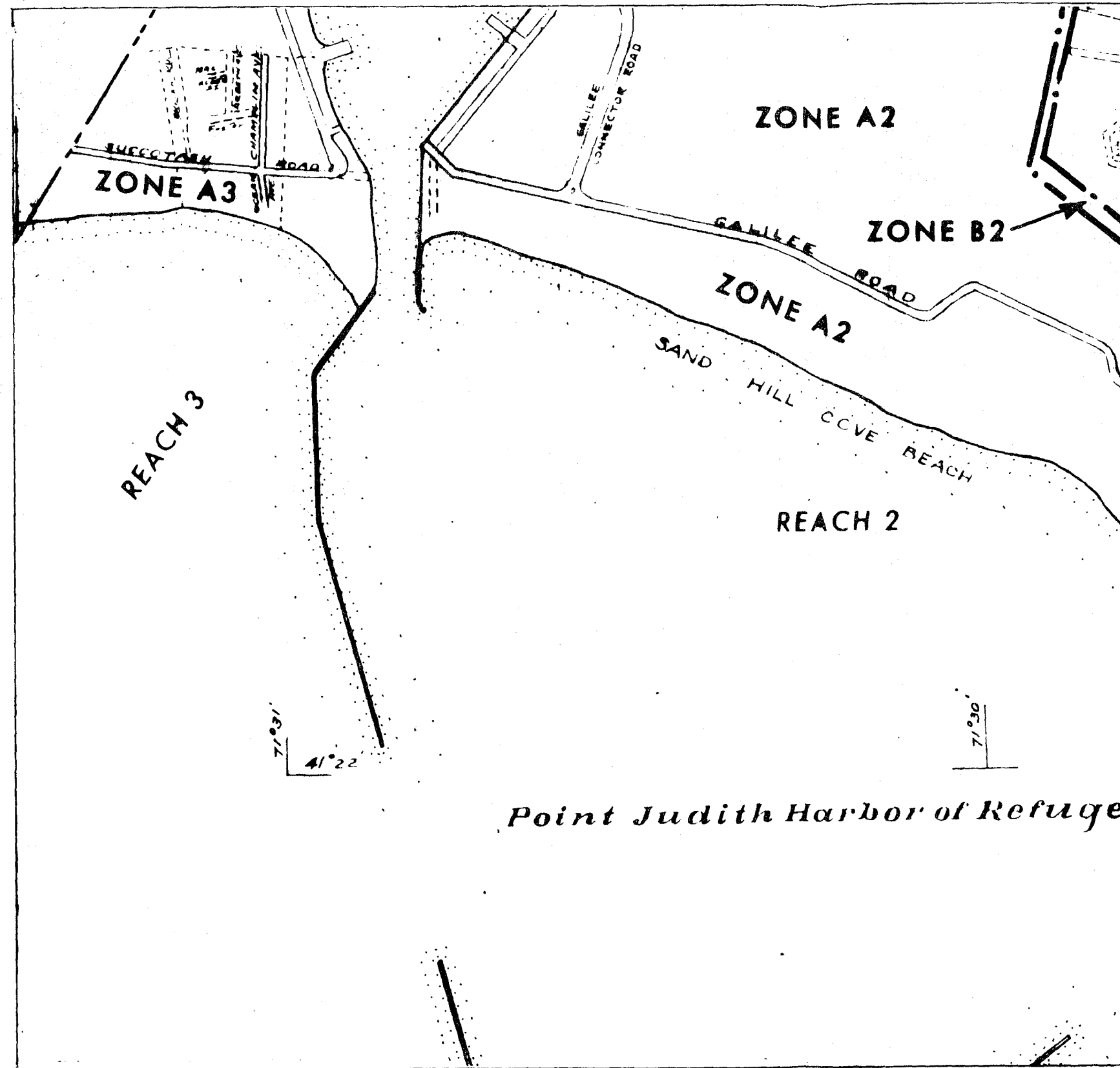


SCALE IN FEET  
 0 1000 2000 3000

## **FLOOD INSURANCE STUDY MAP NARRAGANSETT, R. I. INDEX MAP**

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MATCH LINE SHEET NO. 3



*Point Judith Harbor of Refuge*

MATCH LINE SHEET NO. 2



**LEGEND:**

— • — ZONE LIMIT

100 YEAR FLOOD ELEVATION

ZONE A2 ELEV. 10.7 M.S.L.

ZONE A3 ELEV. 9.7 M.S.L.



**FLOOD INSURANCE STUDY MAP  
NARRAGANSETT, R. I.**

**SHEET 1 OF 14**

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~~XXXXXXXXXX~~ • ~~XXXXXXXXXX~~ ZONE LIMIT

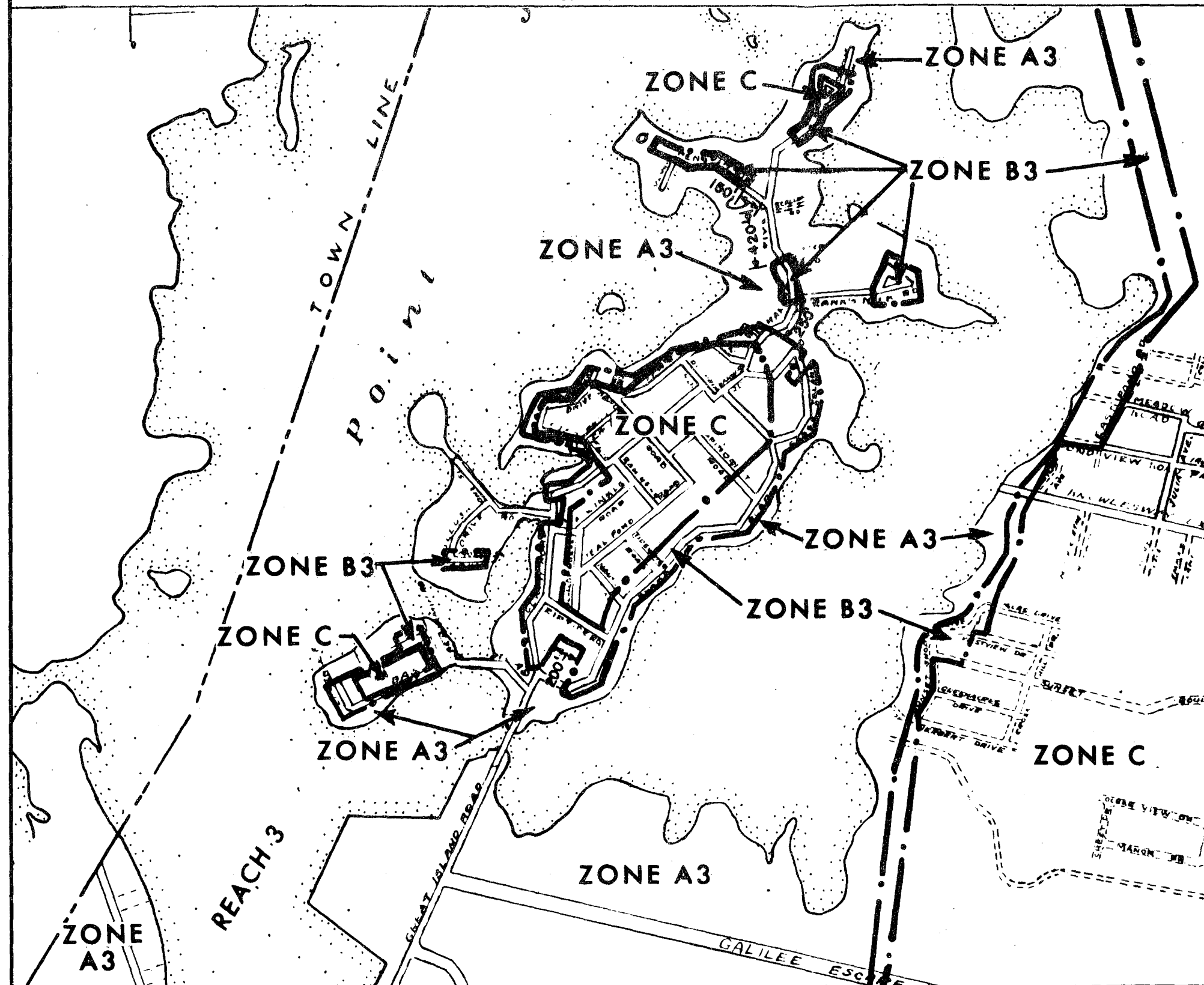
**ZONE A2 ELEV. 10.7 M.S.L.**

A horizontal scale bar with markings at 0, 500, 1000, and 2000.

**SHEET 2 OF 14**

PLATE NO. 7

MATCH LINE SHEET NO.5



MATCH LINE SHEET NOS. 1 & 2



**LEGEND:**

--- ZONE LIMIT

100 YEAR FLOOD ELEVATION  
ZONE A3 ELEV. 9.7 M.S.L.

MATCH LINE SHEET NO. 4

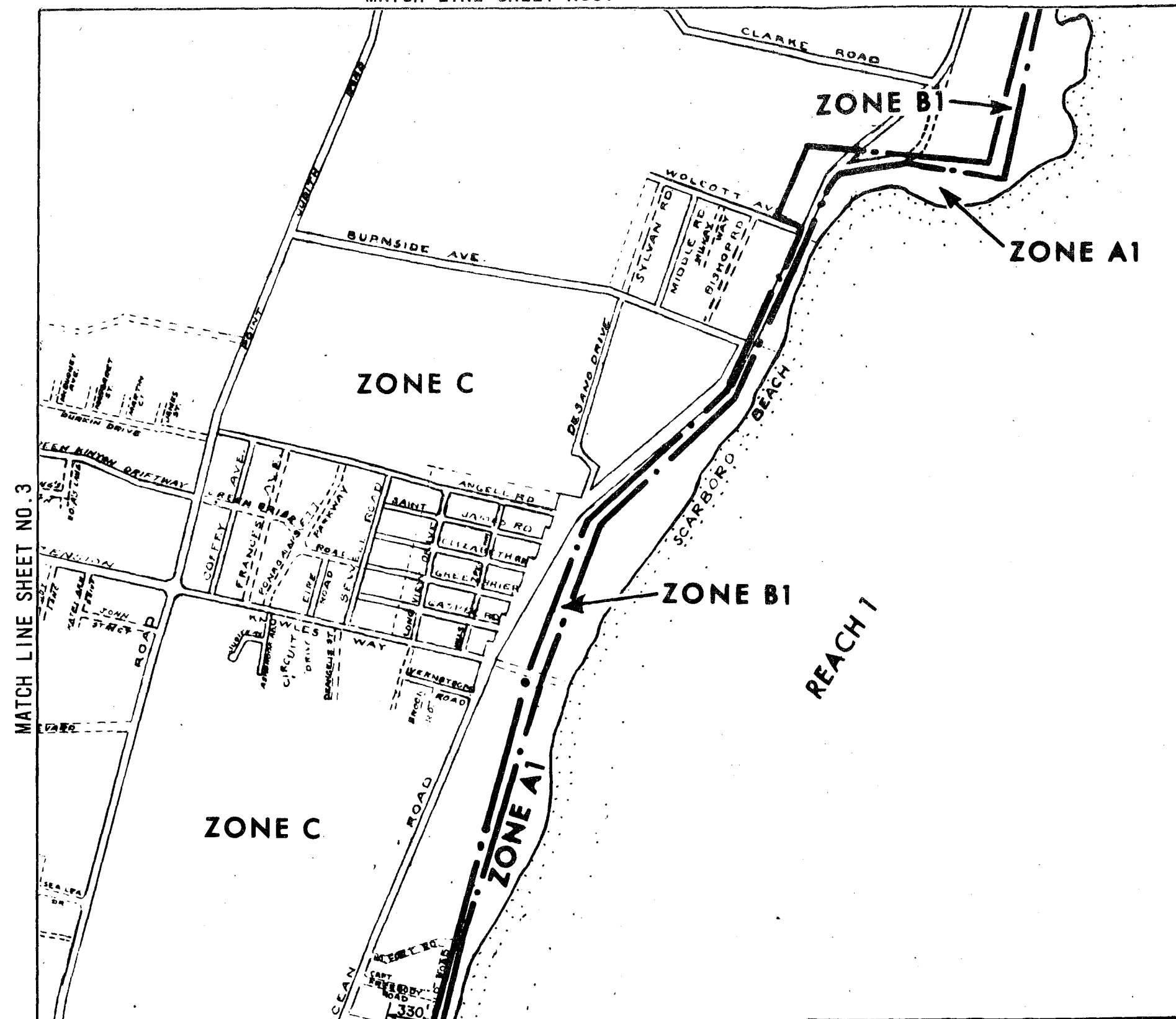


FLOOD INSURANCE STUDY MAP  
NARRAGANSETT, R. I.

SHEET 3 OF 14

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MATCH LINE SHEET NOS. 5 & 6



MATCH LINE SHEET NO. 3

MATCH LINE SHEET NO. 2



**LEGEND:**

— • — ZONE LIMIT

100 YEAR FLOOD ELEVATION  
ZONE A1 ELEV. 13.7 M.S.L.



FLOOD INSURANCE STUDY MAP  
NARRAGANSETT, R. I.  
SHEET 4 OF 14

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[illegible]

WATCH LINE SHEET NO 6



~~CONFIDENTIAL~~ • ~~CONFIDENTIAL~~ ZONE LIMIT

**100 YEAR FLOOD ELEVATION  
ZONE A4 ELEV. 11.5 M.S.L.**

SCALE IN FEET

0 500 1000 2000

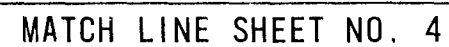
A horizontal scale bar with markings at 0, 500, 1000, and 2000 feet. The bar is divided into four equal segments by vertical tick marks. The numbers 0, 500, 1000, and 2000 are placed below the bar at their respective positions.

**FLOOD INSURANCE STUDY MAP**  
**NARRAGANSETT, R. I.**  
**SHEET 5 OF 14**

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MATCH LINE SHEET NO. 5



~~SECRET~~ - ~~CONFIDENTIAL~~ ZONE LIMIT

SCALE IN FEET

0 500 1000 2000

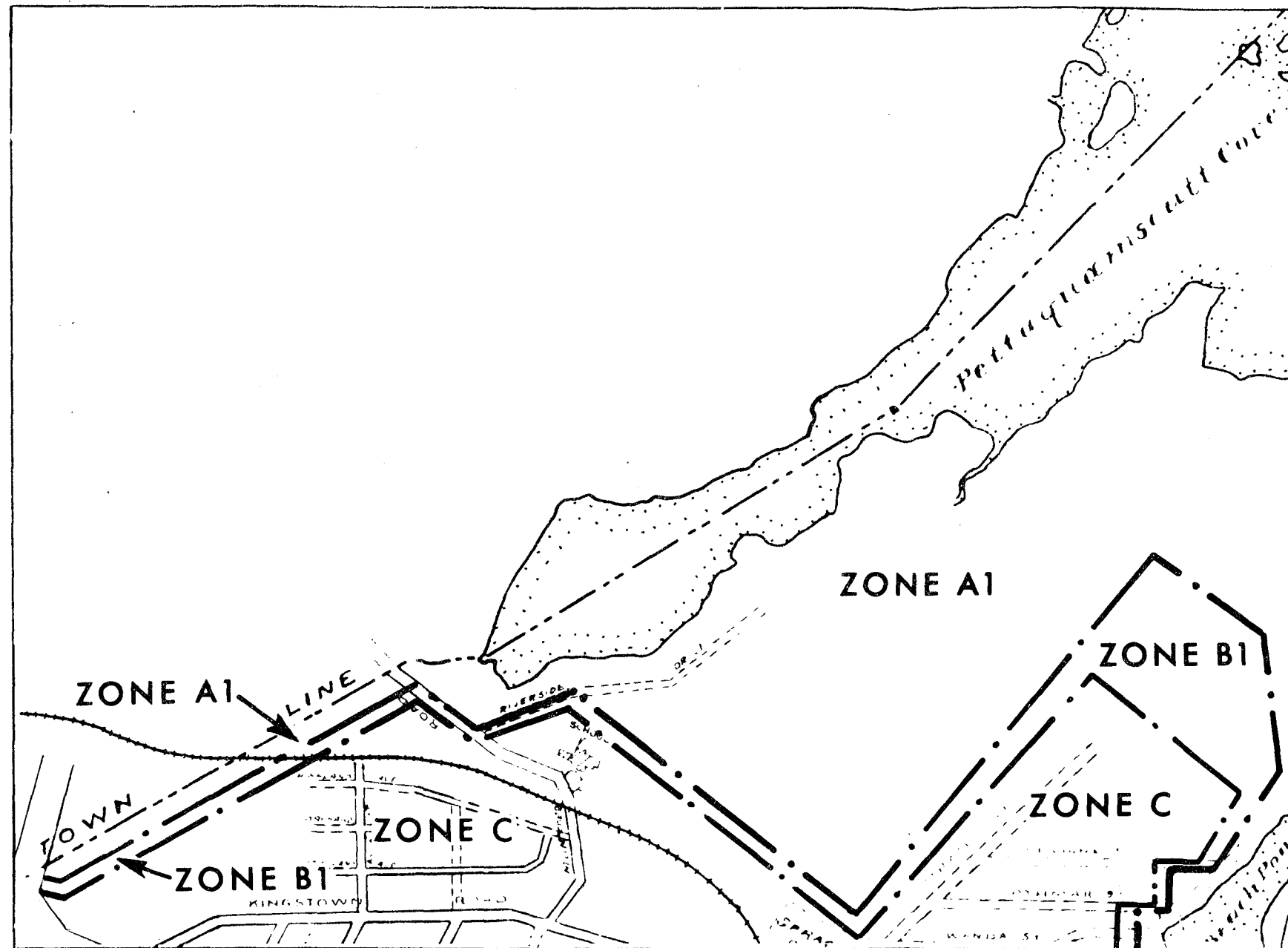
A horizontal scale bar with markings at 0, 500, 1000, and 2000 feet. The bar is divided into four equal segments by vertical tick marks. The text 'SCALE IN FEET' is centered above the bar.

**SHEET 6 OF 14**

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MATCH LINE SHEET NOS. 7 & 8

MATCH LINE SHEET NO. 10



**LEGEND:**

--- · --- ZONE LIMIT

100 YEAR FLOOD ELEVATION  
ZONE A1 ELEV. 13.7 M.S.L.



**FLOOD INSURANCE STUDY MAP  
NARRAGANSETT, R. I.**

**SHEET 9 OF 14**

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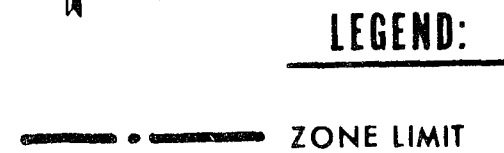




The map illustrates the layout of Reach 1, a coastal area. Key features include:

- Sampling Zones:**
  - ZONE A1:** Located in the upper left, upper right, and lower left sections of the map.
  - ZONE B1:** Located in the lower left section, near the shoreline.
  - ZONE C:** A large central area, likely a body of water or a large open space.
- Geographical Features:**
  - BONNET T. SHOKES:** A prominent feature in the upper right section.
  - BONNET POINT:** A point of land in the lower right section.
- Roads and Infrastructure:**
  - MEYTUXET ROAD:** A road running horizontally across the top.
  - BONNET ROAD:** A road running vertically along the right side.
  - SPRING:** A small feature near the top center.
  - GENERAL AVE:** A road running horizontally in the center.
  - CHURCH AVE:** A road running horizontally below General Ave.
  - BRACKEN DR:** A road running vertically in the lower center.
- Other Labels:**
  - REACH 1:** A large label in the bottom right corner.
  - SPRING:** A small feature near the top center.
  - GENERAL AVE:** A road running horizontally in the center.
  - CHURCH AVE:** A road running horizontally below General Ave.
  - BRACKEN DR:** A road running vertically in the lower center.

MATCH LINE SHEET NO. 11



SCALE IN FEET

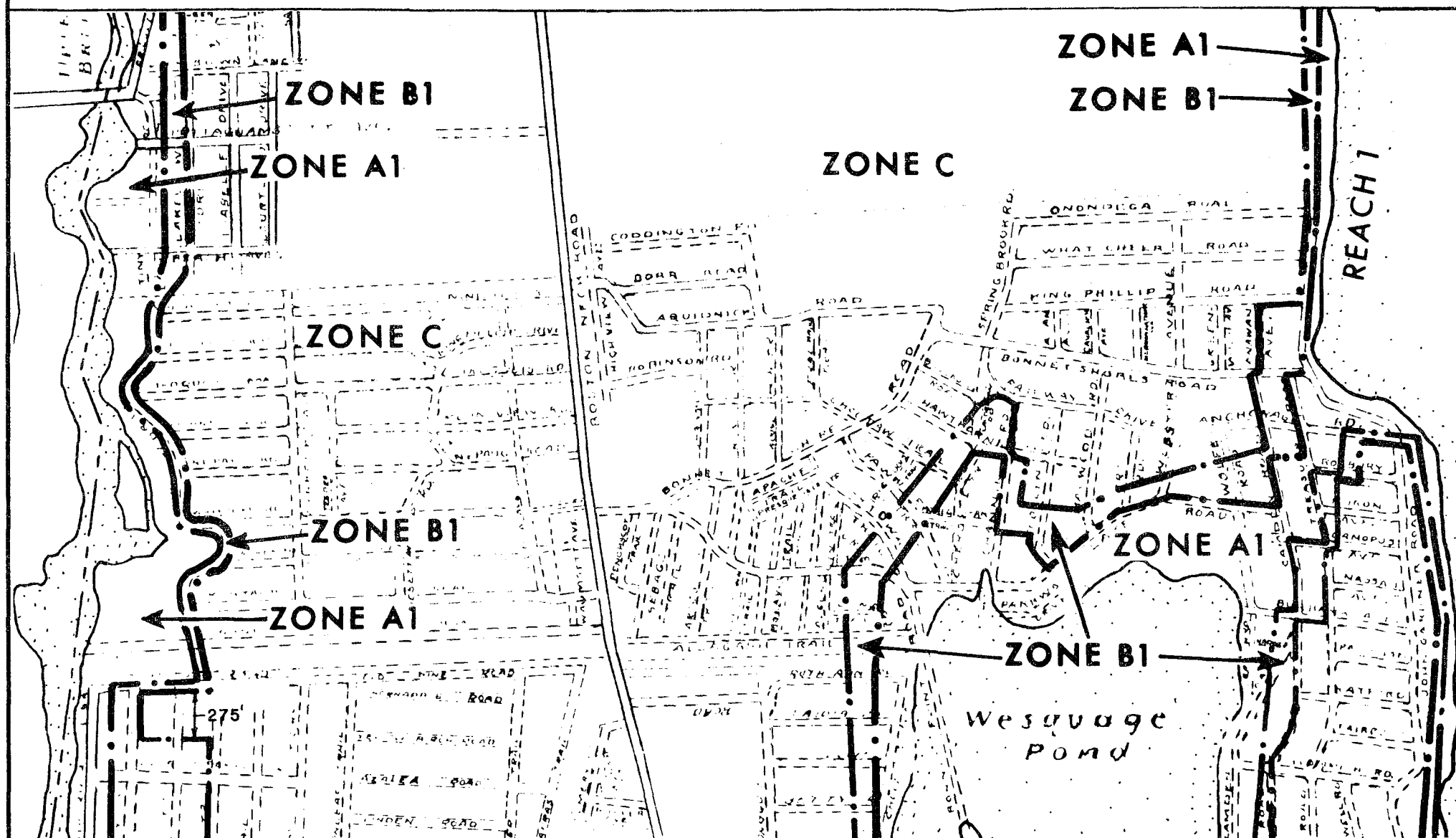
0 500 1000 2000



**SHEET 12 OF 14**

PLATE NO. 17

MATCH LINE SHEET NO. 14



MATCH LINE SHEET NO. 12



**LEGEND:**

--- ZONE LIMIT

100 YEAR FLOOD ELEVATION  
ZONE A1 ELEV. 13.7 M.S.L.

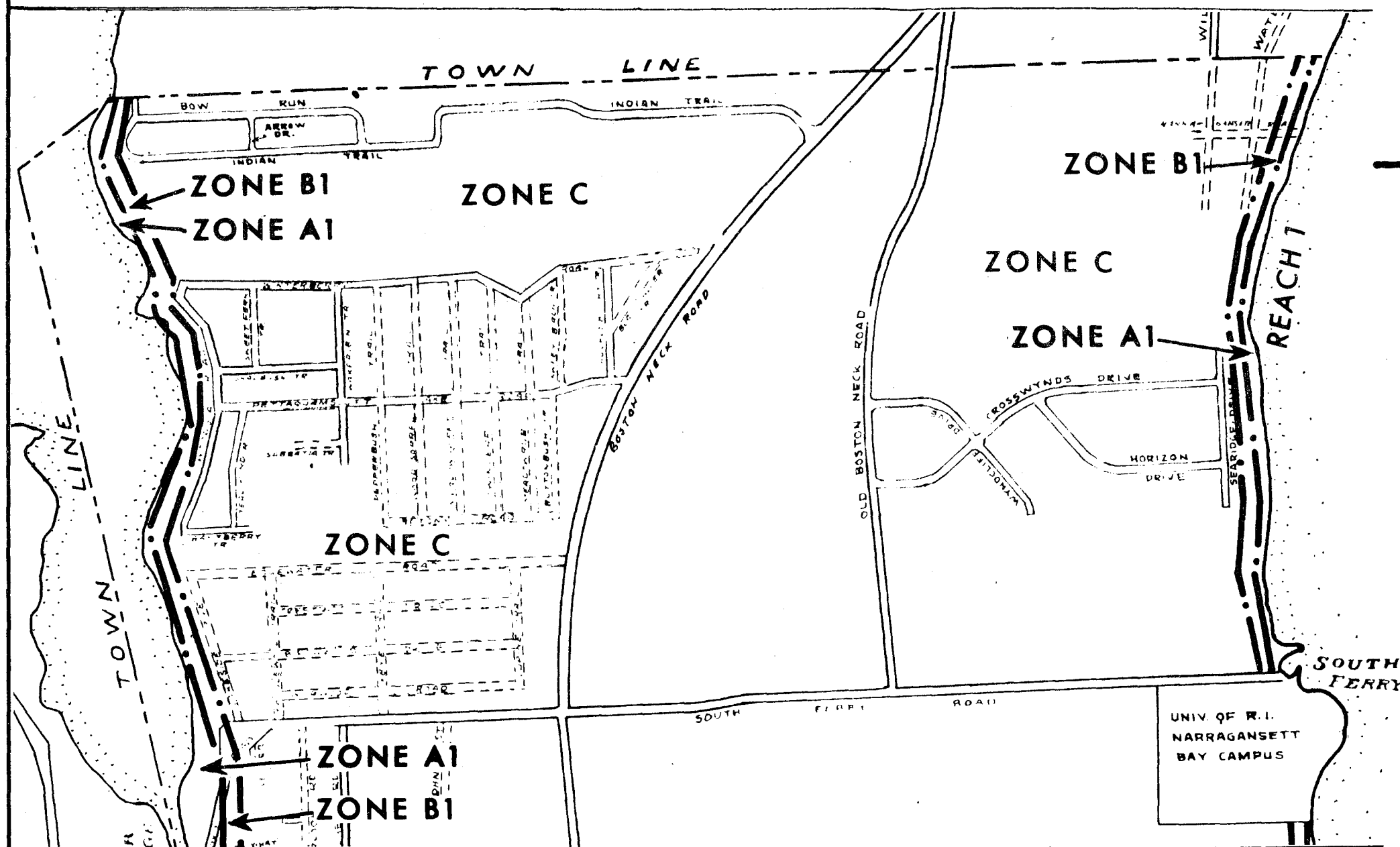


**FLOOD INSURANCE STUDY MAP  
NARRAGANSETT, R. I.**

**SHEET 13 OF 14**

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**LEGEND:**

--- ZONE LIMIT

100 YEAR FLOOD ELEVATION  
ZONE A1 ELEV. 13.7 M.S.L.



MATCH LINE SHEET NO. 13

**FLOOD INSURANCE STUDY MAP  
NARRAGANSETT, R. I.  
SHEET 14 OF 14**

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